



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

MANOSROI *et al.*

Appl. No.: 09/987,455

Filed: November 14, 2001

For: **Methods For Large Scale  
Production of Recombinant DNA-  
Derived tPA or K2S Molecules**

Confirmation No.: 6739

Art Unit: 1652

Examiner: Nashed, N.

Atty. Docket: 0652.2190001/EKS/M-M

**Second Supplemental Information Disclosure Statement**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. The numbering on this Second Supplemental Information Disclosure Statement is a continuation of the numbering in Applicant's First Supplemental Information Disclosure Statement filed on September 16, 2002 in connection with the above-captioned application.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicant has listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates

02/06/2004 HALI11 00000053 09987455

02 FC:1806

180.00 OP

should not be construed as an admission that the information was actually published on the date indicated.

Applicant reserves the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

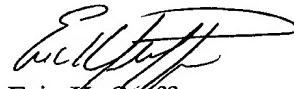
This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application. Attached is our PTO-2038 Credit Card Payment Form in the amount of \$180.00 in payment of the fee under 37 C.F.R. § 1.17(p).

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

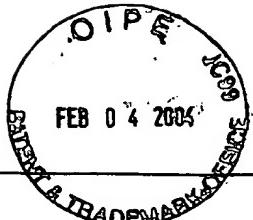


Eric K. Steffe  
Attorney for Applicant  
Registration No. 36,688

Date: February 4, 2004

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

225937.1



FORM PTO-1449

SECOND SUPPLEMENTAL  
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
0652.2190001/EKS/M-MAPPLICATION NO.  
09/987,455APPLICANT  
Manosroi et al.FILING DATE  
November 14, 2001GROUP  
1652

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB1	2003/0013150 A1	01/16/2003	Manosroi et al.			11/14/2001
	AC1	2003/0049729 A1	03/13/2003	Manosroi et al.			11/14/2001
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

RECEIVED

FEB 18 2004

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN2	WO 02/40696	05/23/2002	WIPO			Yes No
	AO2	WO 02/40650	05/23/2002	WIPO			Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>17</u>	Hu, S.Z., et al., "Minibody: A Novel Engineered Anti-Carcinoembryonic Antigen Antibody Fragment (Single-chain Fv-CH <sub>3</sub> ) which exhibits rapid, high-level targeting of xenografts," <i>Cancer Res.</i> 56:3055-3061, American Association for Cancer Research (1996).
	AS	<u>17</u>	Huston, J.S., et al., "Protein engineering of antibody binding sites: Recovery of specific activity in an anti-digoxin single-chain Fv analogue produced in <i>Escherichia coli</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 85:5879-5883, National Academy of Sciences (1988).
	AT	<u>17</u>	Kortt, A.A., et al., "Single-chain Fv fragments of anti-neuraminidase antibody NC10 containing five- and ten-residue linkers form dimers and with zero-residue linker a trimer," <i>Protein Eng.</i> 10:423-433, Oxford University Press (1997).

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449  <u>SECOND SUPPLEMENTAL</u> <u>INFORMATION DISCLOSURE STATEMENT</u>		ATTY. DOCKET NO. 0652.2190001/EKS/M-M	APPLICATION NO. 09/987,455
		APPLICANT Manosroi et al.	
		FILING DATE November 14, 2001	GROUP 1652

## U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
AA						
AB						
AC						
AD						
AE						
AF						
AG						
AH						
AI						
AJ						
AK						

RECEIVED

FEB 18 2004

## FOREIGN PATENT DOCUMENTS

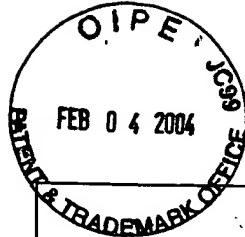
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
AL						Yes No
AM						Yes No
AN						Yes No
AO						Yes No
AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	<u>18</u>	Lovejoy, B., et al., "Crystal Structure of a Synthetic Triple-Stranded $\alpha$ -Helical Bundle," <i>Science</i> 259:1288-1293, American Association for the Advancement of Science (1993).
AS	<u>18</u>	NCBI Entrez, Genbank report, Accession No. AF268281, from Rader, C., and Barbas, C.F. III (October 2000).
AT	<u>18</u>	Pack, P., et al., "Improved Bivalent Miniantibodies, with Identical Avidity as Whole Antibodies, Produced by High Cell Density Fermentation of <i>Escherichia coli</i> ," <i>Bio/Technology</i> 11:1271-1277, Nature Publishing Co. (1993).

EXAMINER	DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449 <b>SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</b>		ATTY. DOCKET NO. 0652.2190001/EKS/M-M		APPLICATION NO. 09/987,455	
		APPLICANT Manosroi et al.			
		FILING DATE November 14, 2001		GROUP 1652	

**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

*RECEIVED  
FEB 18 2004*

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>19</u>	Pack, P., et al., "Tetraivalent Miniantibodies with High Avidity Assembling in <i>Escherichia coli</i> ," <i>J. Mol. Biol.</i> 246:28-34, Academic Press Ltd. (1995).
	AS	<u>19</u>	Perisic, O., et al., "Crystal structure of a diabody, a bivalent antibody fragment," <i>Structure</i> 2:1217-1226, Current Biology Ltd. (1994).
	AT	<u>19</u>	Sivaprasadarao, A. and Findlay, J.B., "Expression of functional human-retinol-binding protein in <i>Escherichia coli</i> using a secretion vector," <i>Biochem. J.</i> 296:209-215, Biochemical Society/Portland Press (1993).

EXAMINER	DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



FORM PTO-1449  <u>SECOND SUPPLEMENTAL</u> <u>INFORMATION DISCLOSURE STATEMENT</u>		ATTY. DOCKET NO. 0652.2190001/EKS/M-M	APPLICATION NO. 09/987,455
		APPLICANT Manosroi et al.	
		FILING DATE November 14, 2001	GROUP 1652

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
AA						
AB						
AC						
AD						
AE				FEB 18 2004		
AF						
AG						
AH						
AI						
AJ						
AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
AL						Yes No
AM						Yes No
AN						Yes No
AO						Yes No
AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	20	NCBI Entrez, GenBank Report, Accession No. E02814, from Habuka, N., et al. (1991).
AS		
AT		

EXAMINER	DATE CONSIDERED
----------	-----------------

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.